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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/314,001	05/19/1999	LJUDMILA GRIGORIEVNA ASLANOVA	33611YW002	4566

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EXAMINER
HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
1731	23

DATE MAILED: 04/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/314,001	ASLANOVA, LJUDMILA GRIGORIEVNA	
	Examiner	Art Unit	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 22-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 22-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *26 March 2002* is: a)☐ approved b)☒ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

It is noted that apparatus claims have been withdrawn from consideration, yet amendments are being made to those claims. There are no linking claims. The apparatus claims will not be rejoined - under any circumstances - because Applicant elected without traverse in paper #7. Applicant has waived any rights to having apparatus claims rejoined.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 and 22-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Examiner could find no support for defining the firing space by the floor and roof surfaces. Furthermore, since the lower portion is occupied by glass, it would seem improper to consider it to be part of a "space". All "firing" occurs above the melt. This appears to be a new definition created merely to overcome the prior art. This is a

prima facie showing of missing support. The burden is now on Applicant to show support.

There is no support for any "height spacing". Nor for the relationship between them presently claimed.

There is also no support for claims 25 and 26 and 28 as now claimed. The claim defines the stabilizing section as having a height between the second floor and roof. There is no support for defining the height as thus. First there is no explicit support. More importantly, the sentence spanning pages 4-5 of the specification states the "stabilizing section height is determined by the melt height..." Whereas there is inherently a spacing between the walls, there is no support for the limitation that the 0.4-0.6 ratio is determined by using that spacing.

Claims 1-7 and 22-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what a "height spacing" is. There is no mention of this in the specification. Whereas one would understand that a "spacing" is between the roof and the floor, one would be confused as to how "height" changes what is meant by "spacing".

Drawings

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 26 March 2002 have been disapproved. It is deemed that the heights shown give a meaning to the dimensions - meanings which were not present in the original specification.

Whereas the previous Office action required that the 0.4-0.6 ratio be shown. That requirement is no longer maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin 4149866 in view of Shofner 4343637 and Naber 4940478 and optionally in view of Sorg 5573569.

Austin discloses the composition of the invention and the use of basalt: see col. 2, line 48- col.3, line17. However, Austin does not go into much detail as to how the melt is created. Although Austin does not mention the ratios, they are inherently met by at least one of the specific compositions disclosed by Austin.

Naber teaches that it is desirable to preheat basalt when making fibers: col. 1, lines 6-8 and 31-34. This is to save energy/money: col. 2, lines 19-23. It would have

been obvious to practice the Austin invention by using preheat of the basalt as taught by Naber for the reasons of Naber.

Shofner teaches using a furnace (12) and a forehearth (18) to produce fibers from basalt. Austin fails to disclose what sort of apparatus is used. It would have been obvious to use the Shofner apparatus to form the fibers, because some sort of apparatus is needed and for the advantages that Shofner discusses. The attached enlarged Shofner figure substantially shows how the claim is met. It is note that a the claimed "space" and "section" need not have any physical boundaries. One can arbitrarily designate a space or section to be as small as one wishes. Clearly there is firing occurring in the "firing space" and stabilizing (i.e. homogenizing) in the "stabilizing section". The glass inherently reaches a fiber manufacturing temperature in that it is inherently a temperature used during the manufacture of fiber.

AS to the "height spacing" limitations. First it is noted that there is no definition for "height spacing". Therefore the Office has much latitude in interpreting this term. Consistent with the previous arbitrary division of the Shofer tank into the firing space and the stabilizing space, it is deemed that the second interior and roof surfaces together have a height spacing - i.e. the spacing of the roof from the top of the melt. This spacing is less than a spacing of the first floor and roof - specifically the spacing between the floor and the roof. It is noted that there is no antecedent basis for "that" (claim 1, line 8): it is deemed that the broadest reasonable interpretation for "that" is "a height spacing". For to interpret the claim as requiring a single height spacing would be improper because many tank crowns are arched - thus yielding many different heights.

An alternative interpretation for "height spacing" is the spacing between heights. At every location between each floor and it's respective roof, there is a height (difference). For example, if there is an east wall and an west wall, there would be a

height at each of those locations. If the two walls are 15 feet apart, then the spacing between the two wall heights would be 15 feet - i.e. the "height spacing" is 15 feet.

Claims 2, 25, 26: one can arbitrarily designate the section and the space so that the will have height spacings be within the claimed ratio range.

As to claim 3, it would have been an obvious matter of routine experimentation to determine the optimal glass temperature. Clearly, if the glass was near or below the melting temperature it would be too stiff to draw a fiber therefrom. And if it was very much above the melting point, it would be too fluid - water like - to draw a fiber therefrom.

Claim 5: see Table 3. It would have been obvious that the feeder would be at a temperature near the claimed range.

Claim 2, 6 and 4: See col. 7, line 9-11 of Naber. It is clear that the basalt would be heated at least one temperature within the claimed range for at least one portion of the process.

Claim 7: see how claim 3 is addressed.

Claims 22- 24 and 27-29 are clearly met.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sorg (2), Lythgoe, Demarest, Hynd, Tsai, Moreau, Mellem and Whitfield are cited as being of general interest.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stan Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7115 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

4-5-02

John Hoffmann
Primary Examiner
Art Unit 1731

jmh
April 5, 2002